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*E. L. Pencoske*  
Attorney for Applicants

Date: 9 Oct. 2001



500

Receipt #3

PATENT

Attorney Docket No.: DB000575-023

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

<b>Applicant:</b>	Keeth, et al.	)	<b>Examiner:</b>	Not yet assigned
<b>Serial No.:</b>	09/934,795	)	<b>Art Unit:</b>	2816
<b>Filing Date:</b>	August 22, 2001	)		
<b>Title:</b>	256 MEG DYNAMIC RANDOM ACCESS MEMORY			

TRANSMITTAL LETTER

**To:** Commissioner for Patents  
United States Patent and Trademark Office  
Office of Initial Patent Examination  
Customer Service Center  
Washington, DC 20231

Dear Sir:

Enclosed for filing in the above-captioned application, please find the following:

1. a Request for Corrected Filing Receipt;
2. a copy of the Preliminary Amendment;
3. a copy of the original Filing Receipt with the corrections marked in red ink.

Also enclosed is a return postcard. Please date stamp and mail the postcard in order to acknowledge receipt of the above-reference correspondence.

The Commissioner is hereby authorized to charge any underpayment or credit any overpayment to our Deposit Account No. 20-0888. A duplicate copy of this transmittal is enclosed.

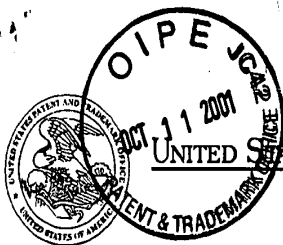
Respectfully submitted,

*E. L. Pencoske*

Edward L. Pencoske  
Reg. No. 29,688  
THORP REED & ARMSTRONG, LLP  
One Oxford Centre, 14<sup>th</sup> Floor  
Pittsburgh, PA 15219-1425  
(412) 394-7789

Dated: 9 Oct, 2001

Attorneys for Applicant



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
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APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/934,795	08/22/2001	Brent Keeth	DB000575-023

CONFIRMATION NO. 9430

## FORMALITIES LETTER



\*OC000000006792317\*

Edward L. Pencoske  
Throp Reed & Armstrong LLP  
One Oxford Centre  
301 Grant Street  
Pittsburgh, PA 15219-1425

Date Mailed: 09/26/2001

## NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

*Filing Date Granted*

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.  
*A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(l) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.
- **The balance due by applicant is \$ 130.**

*A copy of this notice **MUST** be returned with the reply.*

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PART 2 - COPY TO BE RETURNED WITH RESPONSE

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THORP REED AND ARMSTRONG, LLP  
One Oxford Centre  
301 Grant Street, 14<sup>th</sup> Floor  
Pittsburgh, PA 15219-1475

*Danick Harrison*

**PATENT**

Attorney Docket No.: DB000575-023

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s):	Keeth, et al.	)	
		)	Examiner: Not yet assigned
Serial No.:	Not yet assigned	)	
		)	Art Unit: Not yet assigned
Filed:	22 August 2001	)	
Entitled:	256 MEG DYNAMIC RANDOM ACCESS MEMORY		

**PRELIMINARY AMENDMENT**

Preliminary to the examination of the above-identified application filed herewith,  
please amend that application as follows.

**In the Specification**

Page 1, line 2, after the title, insert -- This Application is a divisional application of  
U. S. Application Serial No. 09/621,560 filed July 21, 2000, which is a divisional application  
of U.S. Application Serial No. 08/916,692 filed August 22, 1997.—

Page 52, last full paragraph, please amend as follows:

Reference is hereby made to an appendix which contains [nine microfiche having a  
total of fifty-two frames] eleven microfiche having a total of sixty-six frames. The appendix  
contains [33] 44 drawings which illustrate substantially the same information as is shown in  
FIGs. 1-113, but in a more connected format.

A replacement page 52 is enclosed; a copy of page 52 marked to show the changes is  
also enclosed.

FIG. 108 is reproduction of FIG. 4f illustrating an array slice to be discussed in connection with the all row high test mode;

FIG. 109 is a reproduction of FIG. 6A with the sense  
5 amps and the row decoders illustrated for purposes of explaining the all row high test mode;

FIG. 110 identifies various exemplary dimensions for the chip of the present invention;

FIG. 111 illustrates the bonding connections between  
10 the chip and the lead frame;

FIG. 112 illustrates a substrate carrying a plurality of chips constructed according to the teachings of the present invention; and

FIG. 113 illustrates the DRAM of the present invention  
15 used in a microprocessor based system.

#### Microfiche Appendix

Reference is hereby made to an appendix which contains [nine microfiche having a total of fifty-two frames] eleven  
20 microfiche having a total of sixty-six frames. The appendix contains [33] 44 drawings which illustrate substantially the same information as is shown in FIGs. 1-113, but in a more connected format.

FIG. 108 is reproduction of FIG. 4f illustrating an array slice to be discussed in connection with the all row high test mode;

FIG. 109 is a reproduction of FIG. 6A with the sense  
5 amps and the row decoders illustrated for purposes of explaining the all row high test mode;

FIG. 110 identifies various exemplary dimensions for the chip of the present invention;

FIG. 111 illustrates the bonding connections between  
10 the chip and the lead frame;

FIG. 112 illustrates a substrate carrying a plurality of chips constructed according to the teachings of the present invention; and

FIG. 113 illustrates the DRAM of the present invention  
15 used in a microprocessor based system.

#### Microfiche Appendix

Reference is hereby made to an appendix which contains eleven microfiche having a total of sixty-six frames. The  
20 appendix contains 44 drawings which illustrate substantially the same information as is shown in FIGs. 1-113, but in a more connected format.



#6

In the claims

Please cancel claims 1-173.

**STATEMENT REQUESTING DELETION OF INVENTORS**

The declaration that is being filed with the instant application is a copy of the declaration that was filed with U.S. Application Serial No. 08/916,692 filed August 22, 1997. As a result of the restriction requirement in U.S. Application Serial No. 08/916,692, the following inventors named in the grandparent application are not inventors of the invention claimed in the instant divisional application:

Raymond J. Beffa  
Frank K. Ross  
Larry D. Kinsman  
Ronald L. Taylor  
John S. Mullin

Please file the instant application in the names of the remaining inventors (Keeth, Bunker and Derner) in accordance with 37 CFR 1.63 (d).

**CHANGE OF ADDRESS**

Please note that the undersigned attorney's address has changed since the parent application was filed and that the undersigned attorney's address is correctly noted on form PTO/SB/05 filed herewith, and is correctly noted below.

It is respectfully requested that the instant application, covering claims 174-175, receive an early office action on the merits.

Respectfully submitted

Edward L. Pencoske  
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Thorp Reed & Armstrong, LLP  
One Oxford Centre  
301 Grant Street, 14<sup>th</sup> Floor  
Pittsburgh, PA 15219-1425  
(412) 394-7789

Attorneys for Applicants

Dated: 22 August 2001

## ABSTRACT:

The invention relates to a detector circuit (100) for detecting short-lasting voltage pulses (spikes) in a power supply voltage (VDD). An integrator (INT) forms the average value (VDD\_AV) of the power supply voltage (VDD) and a corresponding energy is stored in a first memory (MEM1). A comparator (COMP) compares the power supply voltage (VDD) with a predetermined voltage interval ([Vref1, Vref2]) and closes a switch (S) when the power supply voltage is outside this interval. The energy from the first memory (MEM1) then flows into a second memory (MEM2) via the switch (S) and a delay circuit (DELAY). When the energy in the second memory (MEM2) exceeds a threshold value, an output stage (OUT) is thereby activated, whose output supplies a signal (SPIKE\_DET) indicating a voltage spike.

Fig. 1



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*E. J. Penacoli*  
Attorney for Applicants

Date: 9 Oct. 2001

#4

PATENT  
Attorney Docket No.: DB000575-023

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Keeth, et al.	)	Examiner:	Not yet assigned
Serial No.:	09/934,795	)		
Filing Date:	August 22, 2001	)	Art Unit:	2816
Title:	256 MEG DYNAMIC RANDOM ACCESS MEMORY	)		

TRANSMITTAL LETTER FOR PETITION IN RESPONSE TO NOTICE TO FILE MISSING  
PARTS OF NONPROVISIONAL APPLICATION

To: Assistant Commissioner for Patents  
Box MISSING PARTS  
Washington, D.C. 20231

Dear Sir:

Enclosed herewith are the following:

1. a Petition In Response To Notice To File Missing Parts Of Nonprovisional Application;
2. a copy of the original Declaration, submitted as Exhibit A;
3. a copy of the filed Request to Delete Inventors as Exhibit B;
4. a copy of the Return Receipt Postcard showing the filing of the Declaration as Exhibit C;
5. a copy of the Utility Patent Application Transmittal as Exhibit D;
6. a check in the amount of \$130 as the requisite fee under 37 C.F.R. 1.117(h) for filing said

Petition.

The Commissioner is hereby authorized to charge any underpayment or credit any  
overpayment to our Deposit Account No. 20-0888. A copy of this transmittal letter is enclosed.



A return postcard is also enclosed. Please date stamp and mail the postcard in order to acknowledge receipt of this correspondence.

Respectfully submitted,



Edward L. Pencoske  
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Pittsburgh, PA 15219-1425  
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Dated: 9 Oct, 2001

Attorneys for Applicant